

AN EXTENDED DESCRIPTION OF *MUS FUSCIPES*,
WATERHOUSE.

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(Figs. 1 - 4).

Few of our native rats have been described, other than from external characters, and such characters are in many cases of but secondary value. As a revision of the Australian Muridæ is much needed, any effort towards the completion of specific descriptions will be welcomed by the Monographer.

By the kindness of Mr. E. G. W. Palmer, we are able to supply deficiencies in our knowledge of *Mus fuscipes*. The specimens described were taken at Lawson, on the Blue Mountains, and of them my correspondent writes :—

“So far as my observations go, they are locally rare, but there is a small colony in my orchard, which I first observed about twelve years ago. Dogs and Dasyures have checked their rapid increase. A peaty ridge is their favorite burrowing place, and they burrow to a great depth. They make long well-cleared surface runs, so that their burrows are easily found. Water seems very necessary to them, and they swim freely. They feed on grasses and herbage, and consume or injure much fruit, climbing the trees for it or nibbling the windfalls, which they carry to the drains and watercourses. From dissections, I believe they seldom have more than two or three young at a time. Their teeth are very powerful, and they make good use of them when roots or dead timber obstruct their excavating. Just now (August 16th, 1899), they seem to be hibernating, as they rarely come out of their nests.”

Subsequently Mr. Palmer told me that the rats had left their old haunts, or more probably had been cleared out by snakes, as a large Black Snake (*Pseudechis porphyriacus*) had been frequently seen in the immediate neighbourhood. It had, so far, evaded capture. At a recent meeting of the Linnean Society of New South Wales, Mr. Palmer announced that he had been bitten by a Black Snake in his grounds at Lawson.*

Description.—Fur long, very thick and soft to the touch. Colour rather variable, from yellowish-brown to blackish-brown. Basal portion of the fur deep grey, almost black, the tips yellow, sometimes

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inclining to reddish, thickly interspersed with long black hairs. Muzzle and face grey, whiskers dark brown or black. On the sides of the body the black hairs are less numerous and shorter, and the yellow colour lighter. On the lower surface the basal fur is grey, not so dark as on the back, and more broadly tipped with yellow, which however is very pale. Ears small, almost naked without, and sparingly clothed with short yellowish-brown hairs within; laid forward, they fail to reach the eye by their own length. Limbs thickly clothed with greyish-brown hairs. Tail shorter than the head and body; the hairs are longer than two scales, but do not conceal them, they are not particularly stiff and are of black colour; twelve scales to the centimetre. Mammæ 2 + 3 = 10.

Dimensions.

	A. ♂	B. ♀
Head and body	173.0 mm.	176.0 mm.
Tail	116.0 "	119.0 "
Length of head	45.5 "	44.0 "
Muzzle to ear	36.6 "	34.0 "
Ear	21.0 "	20.0 "
Forearm and hand	39.5 "	41.5 "
Hind foot	31.2 "	29.3 "
Heel to front of last foot pad	15.0 "	14.5 "
Last foot-pad	4.0 "	3.6 "

Skull.—Stout, compared with *Mus decumanus*, deeper and considerably more arched, the nasal region shorter and thicker; the nasals do not project beyond the line of the premaxillary, they are wide in front but taper backwards, so that the posterior is only one-third the width of the anterior portion. The narrowed part is sunk below the level of the premaxillaries which form a ridge on each side. The supraorbital ridge is very marked, and forms a distinct beading, but loses that character on the temporal region. The interparietal is short, but of average width, its front margin forming a nearly straight suture with the parietals. The anterior palatina foramina are narrow and extend backwards to the anterior margin of the first molars. The anterior zygoma root has the angle rounded, the front edge is vertical and slightly concave; the foramen magnum is wider than deep. The mandible is very powerful, with strong muscle ridges; in front of the anterior molar it is nearly vertical, and the incisor capsule is large and deflected outwards.

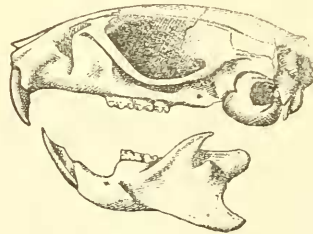


Fig. 1.

Teeth.—The front edges of the upper incisors are of particularly deep orange colour, the lower ones are somewhat paler. The molars are relatively and actually larger than those of *Mus decumanus*, and are noticeably broader; the upper series converge anteriorly, and are somewhat bowed outwards.

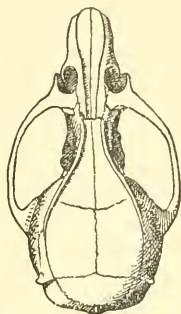


Fig. 2.

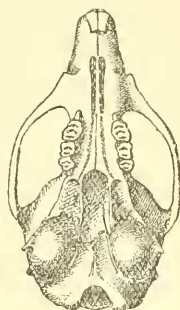


Fig. 3.



Fig. 4.

Dimensions of Skull.

	A. ♂	B. ♀
Greatest length	40.3 mm.	39.6 mm.
Basal length	36.6 "	36.2 "
Greatest breadth	21.9 "	21.7 "
Nasals, length... ..	15.0 "	14.4 "
,, greatest breadth... ..	4.6 "	4.6 "
Interorbital breadth	5.3 "	5.6 "
Interparietal length	4.1 "	4.6 "
,, breadth	10.3 "	10.6 "
Brain case, breadth	17.2 "	17.3 "
Anterior zygoma root	5.3 "	5.5 "
Diastema... ..	10.4 "	10.7 "
Palate, length... ..	21.9 "	21.7 "
Anterior palatina foramina ...	7.2 "	7.1 "
Upper molars, length	8.1 "	8.3 "
Lower " "	7.6 "	8.0 "
Condyle to incisor tip	28.2 "	28.2 "
Coronoid tip to angle	12.2 "	11.4 "

The caudal vertebræ are twenty-five in number; in the longer tailed *Mus arboreicola* (*M. rattus*, *sic* Thomas), the vertebræ number thirty-eight.

Waterhouse described the colour of the lower incisors as black, evidently a peculiarity of the individual examined. Gray, writing on *Mus lutreola* remarks, "front teeth yellow"; while Gould says, "the incisor teeth are orange-coloured." I do not remember having examined a rat's skull in which the incisor teeth are so deeply tinted. The writers quoted describe the under parts of

CORRECTION.

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For Plates xxxv.—xxxvii.

Read Plates xxxiv.—xxxvi.